Vahid Reza Niazmand

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LinkedIn Profile

Education

Bachelor of Engineering – Computer Software Engineering   **Sep 2016-2021**

Shiraz University, Shiraz, Iran

- Graduation Date: July 2021

Concentration: Deep Learning and Reinforcement Learning

Dissertation: Hybrid Recommender System, Supervisor: Dr. Reza Boostani

Test Scores

- IELTS Academic: Band **8** (Listening: **9**, Reading: **8.5**, Speaking: **7.5**, Writing: **7**)
- GRE General: **324** (Quantitative: **164**, Verbal: **160**)

Research Interests

Reinforcement Learning, Robotics, Computer Vision, A.I. in Healthcare

Research Experience

Research Assistant   **2021**

Using Reinforcement Learning in controlling blood glucose level

Shiraz University, Shiraz, Iran

Supervisor: Dr. Ramin Vatankhah

- Collaborated with two other members of the team to develop a simulation environment based on blood glucose mechanical dynamic model in Python
- Trained and tested a RL agent based on **Normalized Advantage Functions** using **PyTorch** and Optuna
- Reviewed and summarized over 30 related and similar works

Research Assistant   **2020**

Using Deep Learning and Matrix Factorization to develop a hybrid recommender system for movies (link, doc)

Shiraz University, Shiraz, Iran

Supervisor: Dr. Reza Boostani

- Conducted data cleaning and feature engineering on MovieLens dataset
- Performed **NLP** techniques (BoW, tf-idf, LSA) for feature encoding
- Trained and tested a neural network based on Google's "Deep and Wide" method to merge sparse and dense features

Publications and Translations

Publications:

- Raheb, M. A., **Niazmand, V. R.**, Eqra, N., & Vatankhah, R. (2021). Subcutaneous insulin administration by deep reinforcement learning for blood glucose level control of type-2 diabetic patients. Journal of Artificial Intelligence in Medicine (Submitted for publication)
- Deep reinforcement learning for brain tumor size control. (Work in progress)

Translations:

- Eck, N. J. V., VOSviewer Manual (2018)

Selected Projects

- UC Berkeley Pacman game A.I. agent project series ([link](#))	**2021**
- Snake game Deep RL agent ([link](#))	**2020**
- Deep RL agent for a strategic game in Sharif A.I. Challenge ([link](#))	**2020**

Achievements and Awards

- Received grant as the top startup company in a fundraising event from Shiraz University	**2021**
- Received grant as the top startup company in the field of publication from Iran's Ministry of Culture	**2020**
- Ranked within the top 0.5 percent among 160,000 candidates in Iran's national university entrance exam	**2016**

Computer Skills

- **Advanced Programming:** Python, JavaScript, MATLAB, HTML, CSS, PHP, SQL
- **Packages:** TensorFlow, Pytorch, Pandas, Numpy, OpenCV, React, React Native
- **Tools:** Git, VS Code, LATEX, Arduino IDE, Jupyter Notebook, Google Colab
- **Environments:** Windows, Ubuntu, MacOS, Android Studio, XCode, Oracle Virtual Box, VMWare Work Station
- **Digital designing:** Adobe XD, Adobe Illustrator, Blender 2.8 (3D)

Professional Experience

UI/UX Designer | Front-end Developer   **2019-2021**

Ghasedak Group (Co-founded), Shiraz, Iran

- Developed android and ios mobile app using React Native
- Developed an admin panel using React
- Designed a user interface for a book store app using Adobe XD
- Designed 3D mockups using Blender 3D
- Designed digital assets using Adobe Illustrator and After Effects

Language

- Persian: Maternal
- English: Fluent (C1)
- German: Basic

References

Dr. Reza Boostani, Associate Professor
School of Electrical and Computer engineering
Shiraz University, boostani@shirazu.ac.ir

Dr. Ramin Vatankhah, Associate Professor
School of Mechanical Engineering
Shiraz University, rvatankhah@shirazu.ac.ir;

Navid Eqra, Doctorate Student
School of Mechanical Engineering
Sharif University of Technology, **navid.eqra@mech.sharif.edu**;